



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,407	06/14/2005	Mitsuhiro Urano	034119.004	8017
441 SMITH, GAM	7590 05/31/2007 BRELL & RUSSELL		EXAMINER	
1850 M STRE	ET, N.W., SUITE 800		KWOK, HELEN C	
WASHINGTON, DC 20036			ART UNIT	PAPER NUMBER
			2856	
			MAIL DATE	DELIVERY MODE
	•		05/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of them may be available under the provision of 3/CFR1-13(a). In ne verte, finewer, may a reply be threely fled. 1 If NO period for reply is specified above, the maintain statisticity priod will apply and will expire SIX (8) MONTHS from the maling date of this communication. 1 Failure for exply which the set or extended period for reply litely status, cause the application become ABMONDE (3.9 LS C. § 13). Any reduce any senter plate the maliginament. Set 3/CFR1-704(b). Status 1) Responsive to communication(s) filled on		Application No.	Applicant(s)				
Helen C. Kwok - The MAILING DATE of this communication appears on the cover sheet with the correspondence address → Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. If NO period for reply is specified above, the maintum statutory period will apply and will expire SK (5) MONTHS from the maintum development of the specification tray a retry be threight for a state 3Ks, 810 MONTHS from the maintum statutory period will apply and will expire SK (5) MONTHS from the mainting and the state 3Ks, 810 MONTHS from the mainting date of this communication, replication is provided by the statute, cause the application to provide of \$1.00 MONTHS from the mainting date of this communication, even if smally field, may reduce any search adverted to the summunication, even if smally field, may reduce any search adverted to the summunication, even if smally field, may reduce any search adverted to the summunication, even if smally field, may reduce any search adverted to the summunication, even if smally field, may reduce any search adverted to the summunication, even if smally field, may reduce any search adverted to the summunication, even if smally field, may reduce any search adverted to the summunication and search and s		10/518,407	URANO ET AL.				
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WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.13(a). In no event knower, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. Failth or reply vision free to reached period for review of the communication of the c	The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the	correspondence address				
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12) △ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) △ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☒ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)	11)☐ The oath or declaration is objected to by the Ex	caminer. Note the attached Office	ce Action or form PTO-152.				
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Art Unit: 2856

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figures 20 and 21 should be designated by a legend such as --Prior Art-because only that which is old is illustrated. See MPEP § 608.02(g).

Claim Objections

3. Claims 2, 4, 8-9 and 16-18 are objected to because of the following informalities. Appropriate correction is required.

In claim 2, line 8, the phrase "the conductive liquid" should be changed to - a conductive liquid --.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7, 13 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7, lines 3-4, the phrase "the metal auxiliary electrode" lacks antecedent basis.

In claim 13, line 3, the phrase "the main electrode sides" lacks antecedent basis.

In claim 17, lines 6 and 7, the phrases "and the like" and "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed

Art Unit: 2856

(those encompassed by "and the like" and "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-118412 (Fukumatsu).

Fukumatsu discloses an electric signal generating device corresponding to position displacement and acceleration comprising, as illustrated in Figures 3 and 9, a container 2 filled with an electrically conductive liquid 3 (i.e. ethylene glycol); a part of an electrode 5,11,12 having a surface formed with a dielectric film (i.e. a silicon oxide film) brought into contact with the conductive liquid; a change in a contact area of the electrode with the conductive liquid with movement of a surface of the conductive liquid is measured from a change in capacitance between the electrode and the conductive liquid such that a change in a tilt angle or an acceleration applied to the container is detected from a measured value. (See, Abstract; sections [0001] to [0013]).

Art Unit: 2856

8. Claims 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2001-324513 (Hiroshi et al.).

Hiroshi et al. discloses an acceleration sensor comprising, as illustrated in Figures 1-7, a closed container 2; an electrically conductive liquid 6 having an amount equal to substantially one-half of an inside volume of the container; a pair or two pairs of lead terminals 4A-4D extending through on end of the container and fixed to the container to be electrically insulated from the container; main electrodes 7A-7D (i.e. short strip shaped) formed with silicon oxide films are located on a liquid surface of the conductive liquid when the container is stationary; an auxiliary electrode 2 (the container functions as an electrode besides a container, as suggested in the Abstract) electrically conductively brought into contact with the conductive liquid. (See, Abstract; sections [0028] to [0046]).

Allowable Subject Matter

9. Claims 2-9 and 16-18 are allowable over the prior art of record.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references cited are related to capacitive sensor having the ability to measure liquid level and inertial forces.

Application/Control Number: 10/518,407

Art Unit: 2856

11. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-

2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Page 6

supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Helen C. Kwok

Art Unit 2856

hck

May 22, 2007